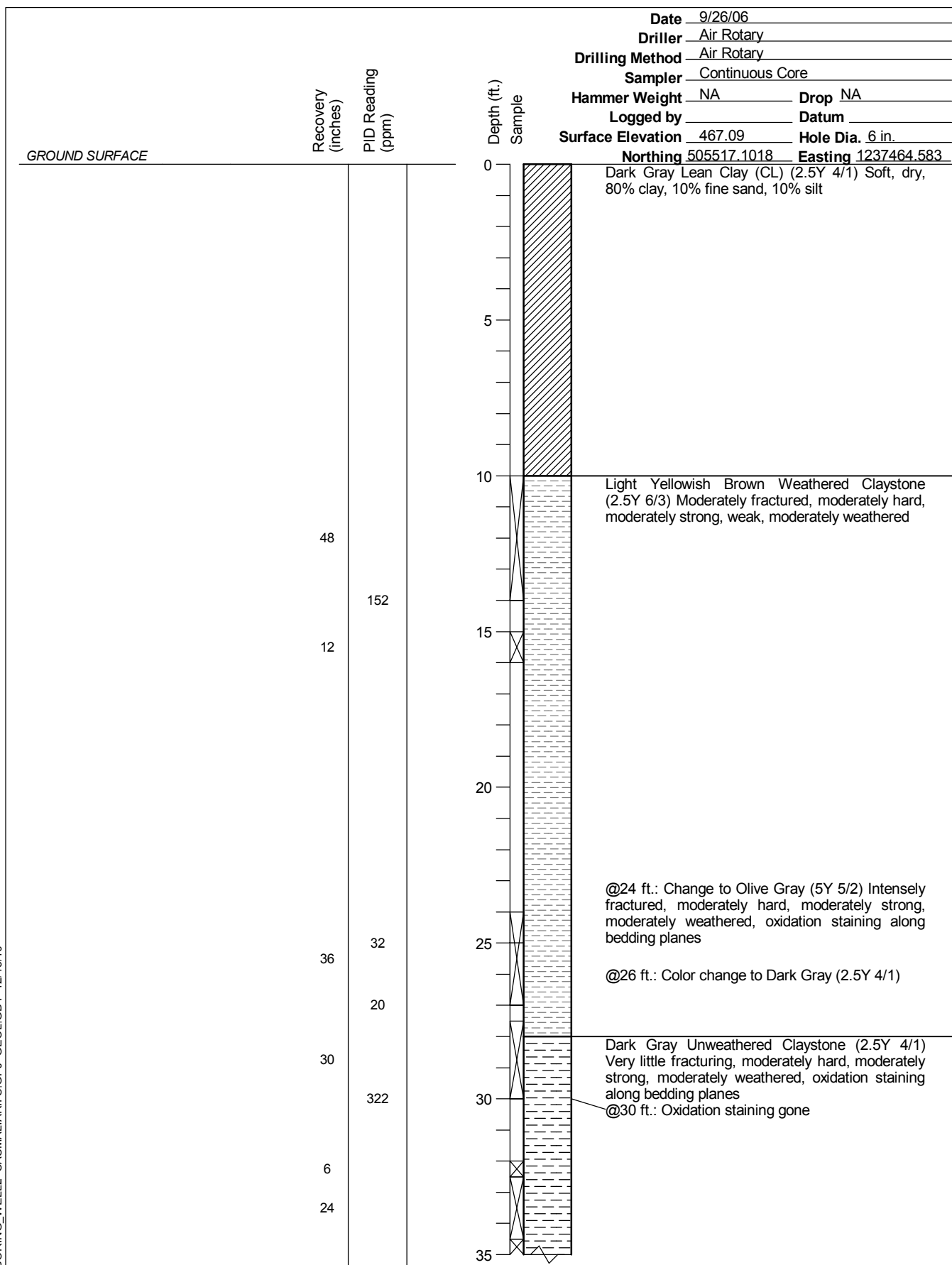


BORING WELL2 CASMALIRIFS.GPJ GEOL.GDT 12/13/10



PLATE

### Log of Boring RISB-02

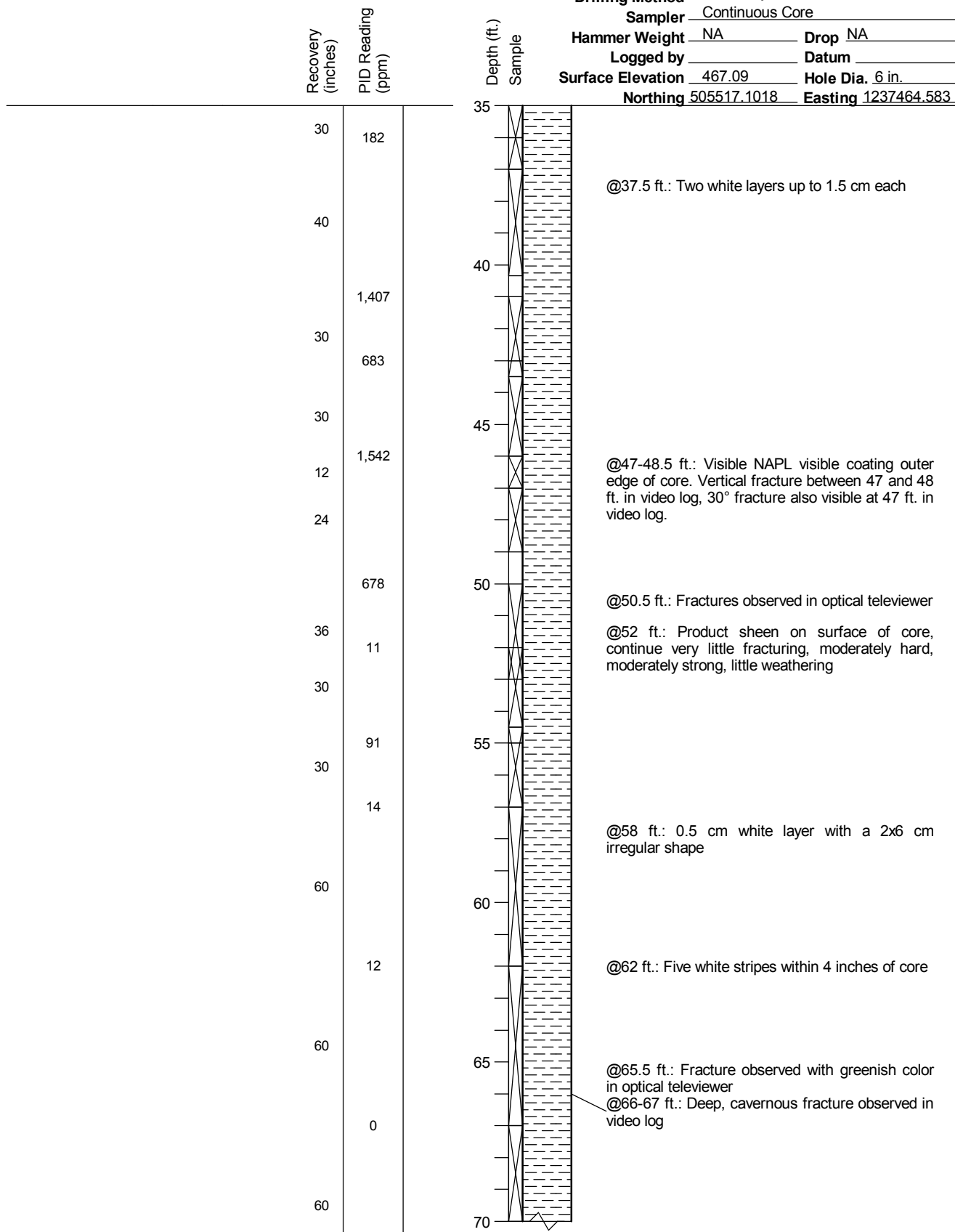
Final Remedial Investigation Report  
Casmalia Resources Superfund Site  
Casmalia, California

# E9-54

DRAWN	JOB NUMBER	CHECKED	CHK'D DATE	APPROVED	APPR'D DATE
PCB	4088097619	WJF	1/11	WBC	1/11

BORING\_WELL2\_CASMALIA\_RIFS.GPJ GEOL.GDT 12/13/10

Date 9/26/06  
 Driller Air Rotary  
 Drilling Method Air Rotary  
 Sampler Continuous Core  
 Hammer Weight NA Drop NA  
 Logged by Datum  
 Surface Elevation 467.09 Hole Dia. 6 in.  
 Northing 505517.1018 Easting 1237464.583



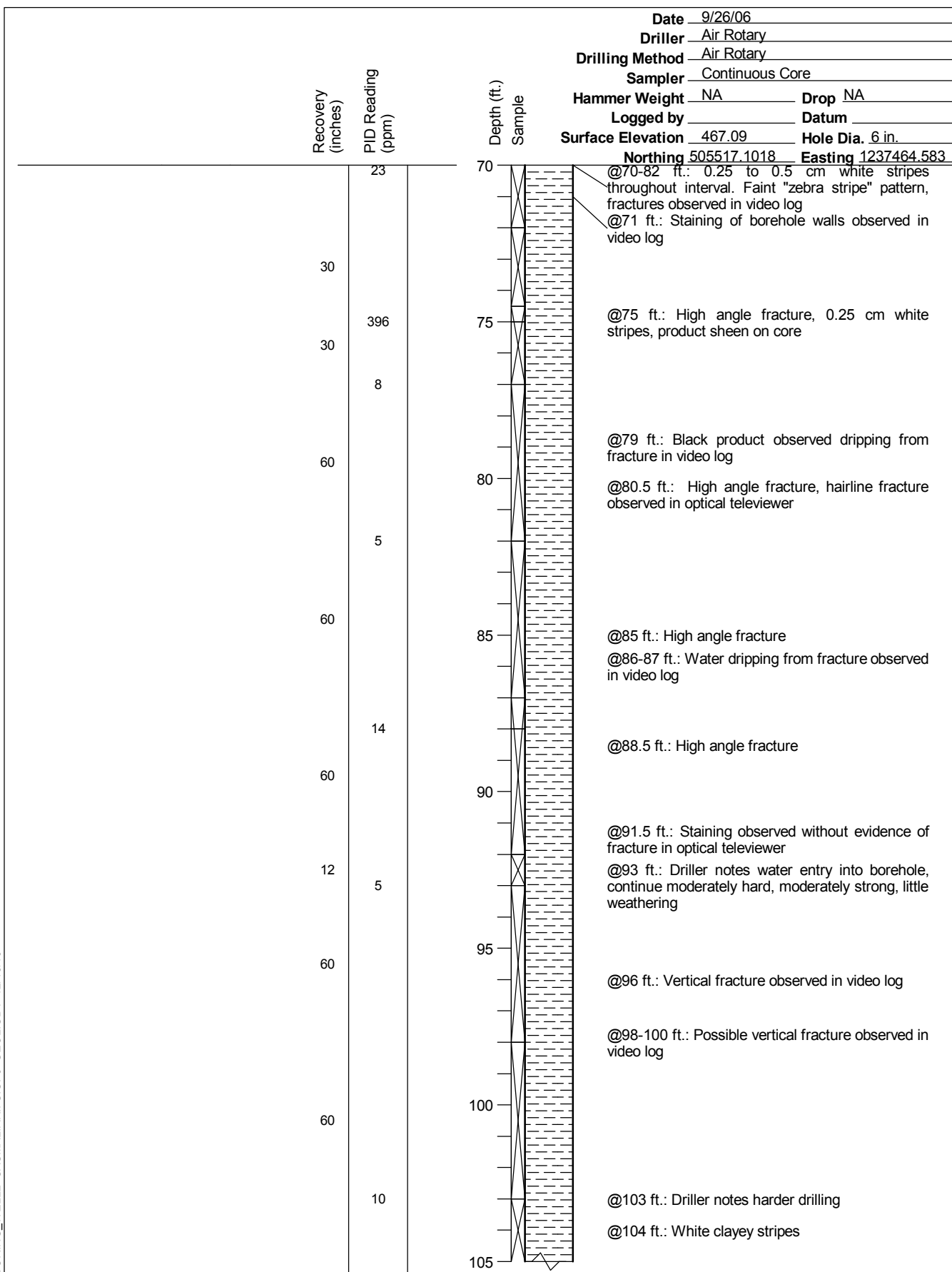
PLATE

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 Casmalia, California

**E9-54**

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BORING\_WELL2\_CASMALIRIFS.GPJ GEOL.GDT 12/13/10



PLATE

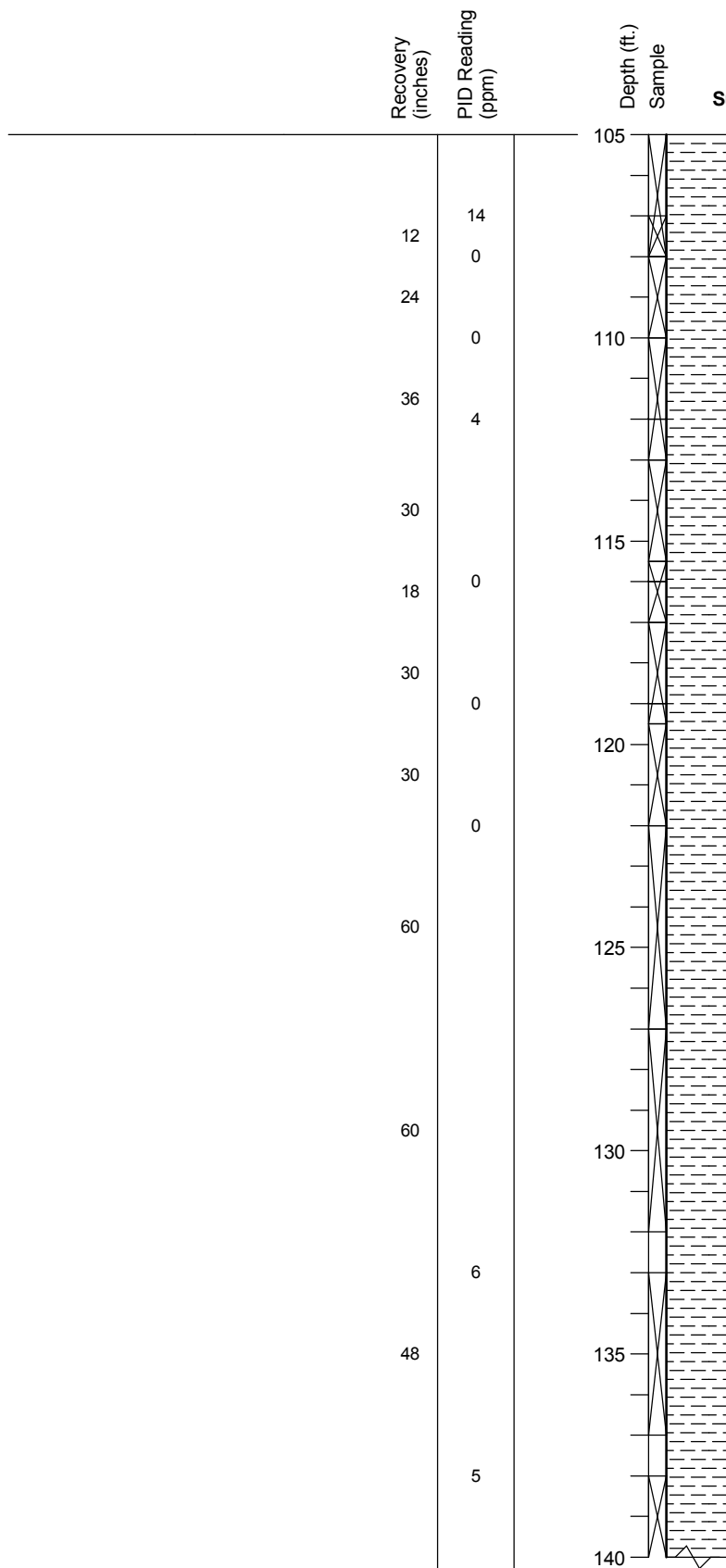
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@109 ft.: Fracture observed in video log, fractures observed in optical televiewer at 108 and 109 ft.

@114 ft.: Fractures with dendritic pattern observed in video log

@116-118 ft.: Vertical fracture observed in video log

@122-128 ft.: Possible fractures or mechanical breakage of core, vertical fracture along western side of borehole observed in optical televiewer

@130 ft.: Vertical fracture observed in southern side of borehole in optical televiewer  
 @130.8-131.5 ft.: Vertical fracture

@132 ft.: Brown residue coating fracture, vertical fracture observed in video log

@135 ft.: Continue as above, little fracturing, moderately strong, moderately hard, little weathering

@137 ft.: White layering no longer present

PLATE

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BORING\_WELL2\_CASMALIA/ARIFS.GPJ GEOL.GDT 12/13/10

Date 9/26/06  
Driller Air Rotary  
Drilling Method Air Rotary  
Sampler Continuous Core  
Hammer Weight NA Drop NA  
Logged by Datum  
Surface Elevation 467.09 Hole Dia. 6 in.  
Northing 505517.1018 Easting 1237464.583

Recovery  
(inches)

PID Reading  
(ppm)

Depth (ft.)  
Sample

48

3

60

0

60

0

60

0

60

0

60

0

60

0

60

140

145

150

155

160

165

170

175

@140 ft.: Calcite veins resemble clustered together like spaghetti

@141 ft.: Possible horizontal fracture

@143 ft.: Possible vertical fracture

@144.5 ft.: Occasionally fractured to moderately fractured

@145-146 ft.: Near vertical calcium carbonate deposit. Reacts strongly with muriatic acid

@149 ft.: Possible horizontal fracture

@152 ft.: 3/8 in., white layer, reacts slightly with muriatic acid

@153-153.7 ft.: Possible vertical fracture

@155 ft.: Possible horizontal fracture

@157.2 ft.: White stripes up to 0.5 in. react slightly with muriatic acid

@158.5 ft.: White stripes up to 0.5 in. react slightly with muriatic acid

@159-159.5 ft.: Three possible fractures

@160.5 ft.: White stripe to 1/8 in., slight reaction to muriatic acid

@161-162 ft.: Several possible horizontal fractures

@164 ft.: 20° fracture

@166 ft.: Core is wet, soft

@166.5 ft.: 70° fracture

@167 ft.: Driller notes easier drilling, smooth coring

@170-171 ft.: Three fractures observed in optical televiewer

@174-177 ft.: Intensely fractured, veining observed in video log

PLATE

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# E9-54

DRAWN

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WJF

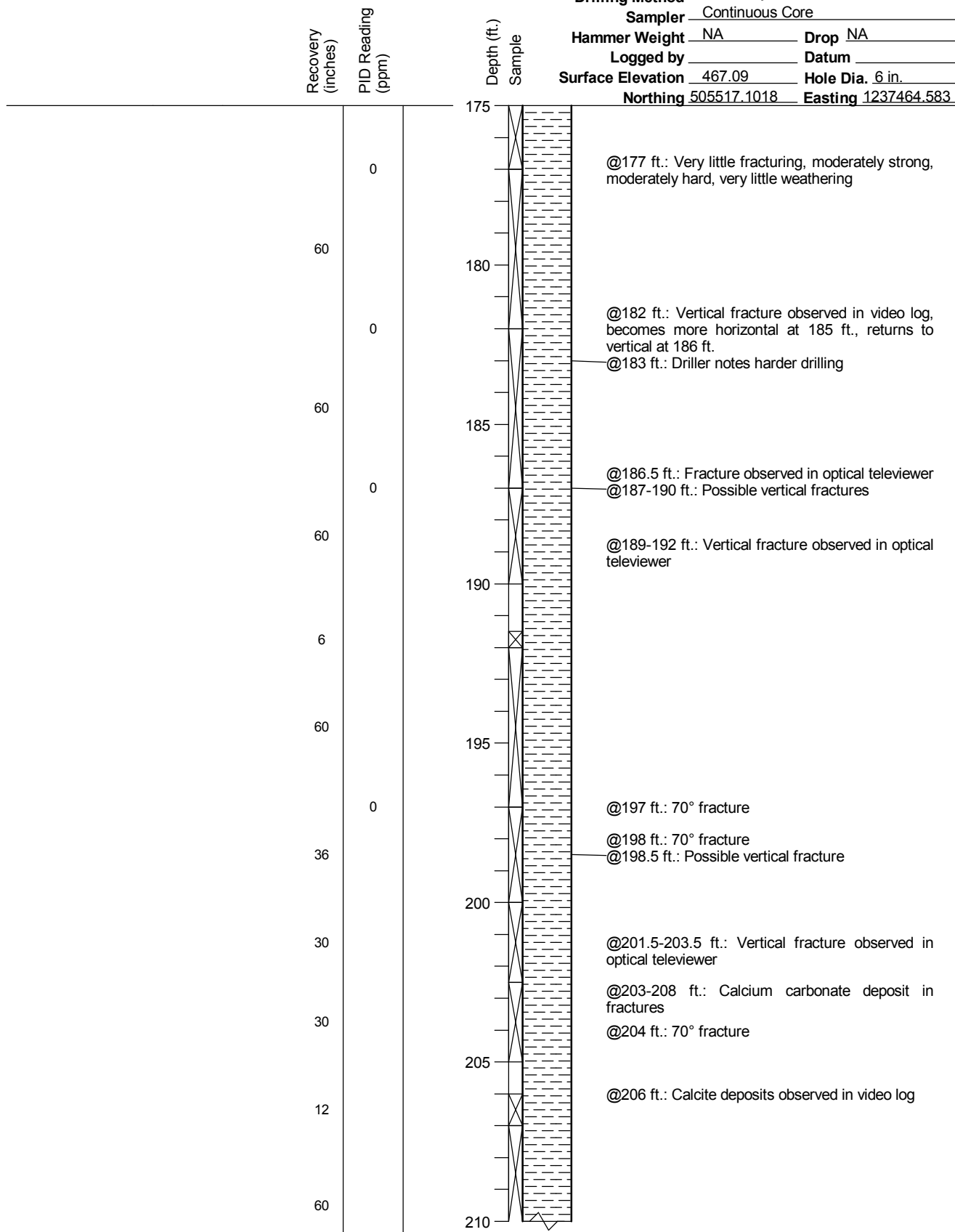
1/11

WBC

1/11

BORING\_WELL2\_CASMALIA\_RIFS.GPJ GEOL.GDT 12/13/10

Date 9/26/06  
 Driller Air Rotary  
 Drilling Method Air Rotary  
 Sampler Continuous Core  
 Hammer Weight NA Drop NA  
 Logged by Datum  
 Surface Elevation 467.09 Hole Dia. 6 in.  
 Northing 505517.1018 Easting 1237464.583



PLATE

### Log of Boring RISB-02

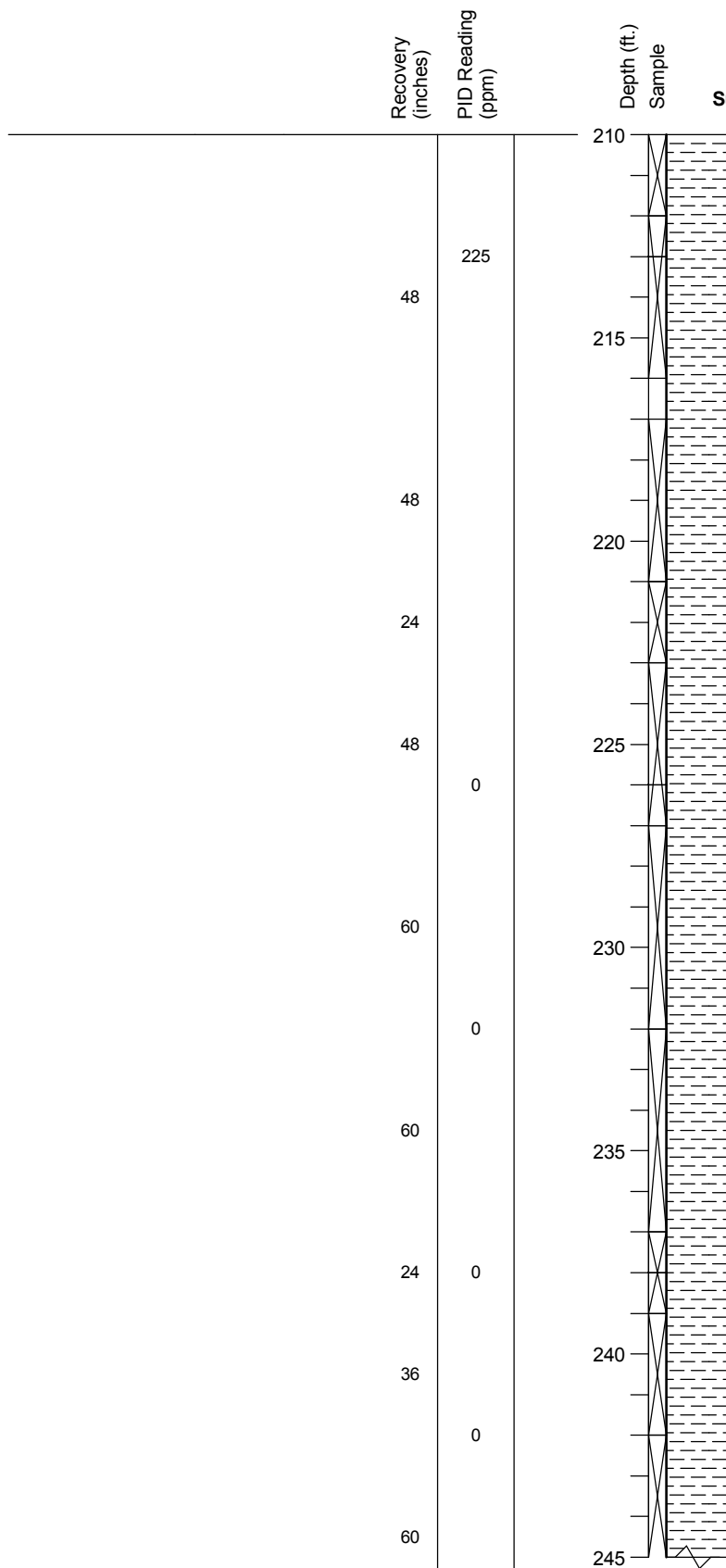
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Date 9/26/06  
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 Drilling Method Air Rotary  
 Sampler Continuous Core  
 Hammer Weight NA Drop NA  
 Logged by \_\_\_\_\_ Datum \_\_\_\_\_  
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@211-214 ft.: Possible fracture zone

@217 ft.: Fracture observed in optical televiewer

@222.5-224 ft.: Multiple hairline 70° fractures observed in optical televiewer

@224 ft.: Very little fracturing, moderately hard, moderately strong, little weathering

@225-227 ft.: 70° fracture observed in optical televiewer

@235.5-236.2 ft.: 70° fracture

PLATE

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BORING\_WELL2\_CASMALIA\_RIFS.GPJ GEOL.GDT 12/13/10

Recovery  
(inches)

PID Reading  
(ppm)

Depth (ft.)

Sample

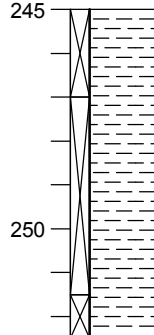
Date 9/26/06  
Driller Air Rotary  
Drilling Method Air Rotary  
Sampler Continuous Core  
Hammer Weight NA Drop NA  
Logged by Datum  
Surface Elevation 467.09 Hole Dia. 6 in.  
Northing 505517.1018 Easting 1237464.583

0

54

0

12



Bottom of boring at 252.5 feet

PLATE

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Casmalia, California

# E9-54

DRAWN

JOB NUMBER

CHECKED

CHCK'D DATE

APPROVED

APPRV'D DATE

PCB

4088097619

WJF

1/11

WBC

1/11